TANK CLOSURE SUMMARY

Site Information

Site Name	UST Site 539 (Former UST-539)
Site Address	Approximately 70 feet south of Building 528 and 150 feet west of G Street at Naval Air Facility (NAF) El Centro.
Responsible Party Name:	Robert Fischer, Environmental Protection Specialist
Responsible Party Phone:	(760) 339-2284
Responsible Party Address:	1605 Third Street, Building 504, Code 45RF, NAF El Centro, CA 92243-5001
Current Land Use:	Active military base
RWQCB File Number:	7DODT22430030

Date spill/leak reported to regulatory agency:	1990 (estimated)
Estimated date discharge/leak was discovered:	1990
How discharge/leak was discovered:	Tank removal in 1990
Cause of discharge/leak:	Leaking UST
Start date for active remediation:	Not applicable
Completion date for active remediation:	Not applicable

	Easting	Northing
Coordinates for tanks:	6741678.00000	1876016.00000

Dates for sample analysis:

Soil:	Oct 1992
Groundwater:	Oct. 1992; Jan. 1999; and Jan. 2001 through Jan. 2004

Site Characterization Information

Description of the former UST:
Former UST 539 was a 1,000-gallon concrete tank used to store diesel fuel. It was installed in 1942 south of Building 528, and was removed in 1990 (see attached Figure 5-4, BEI 2005).

Contaminants Identified:	See attached tables of analytical results
Amount of Contaminants Leaked:	Not estimated.
MTBE:	MTBE has not been reported in groundwater at the site.
Description of the soil/geology:	Subsurface geology consists predominantly of clays, silts, sands, and sand-silt-clay mixtures.

Is soil contamination completely delineated (to what levels)?
The extent of total petroleum hydrocarbon (TPH)-impacted soil was delineated at concentrations greater than or equal to 100 milligrams per kilogram (mg/kg) during a site assessment in 1993 (see attached Figure 6-1; JEG 1993).

Estimated volume of contaminated soil left on site and concentration:
It was estimated that approximately 490 tons of contaminated soil (approximately 490 cubic yards) exists at the site (JEG 1993). The maximum reported concentration of TPH as diesel (TPH-d) was 11,200 mg/kg which was collected at a depth of 7 feet below ground surface at the source area from soil boring 539-1. See attached table of analytical results.

Is groundwater contamination completely delineated?
Delineation of groundwater contamination began in 1990 during building demolition and tank removal activities (Ametech 1990); in 1993 during a site assessment (JEG 1993); and in 2000 during NEX Gas Station groundwater sampling activities (BNI 2000); see attached tables of analytical results and figures. Three monitoring wells, 539-MW1, -MW2 and -MW3, currently exist at the site; well 539-MW1 was installed near the source area, within approximately 5 feet from former UST 539; wells 539-MW2 and 539-MW3 were installed approximately 60 and 140 feet downgradient, respectively from former UST 539.

Monitoring results obtained from 1992 to 2004 from the three wells at the site indicate that benzene was the only chemical of concern (COC) reported at concentrations exceeding cleanup goals (see attached Table 5-3 and Figure 5-4, BEI 2005). Benzene was only reported in source area well 539-MW1 at concentrations from 6 to 35 micrograms per liter (µg/L). Maximum concentrations of other COCs including TPH-d and TPH-g, toluene, ethylbenzene, and total xylenes were also reported in well 539-MW1 but at concentrations that have not exceeded respective cleanup goals (for toluene, ethylbenzene, and total xylenes) (BEI 2005).

Water quality hydrographs indicate that concentrations of benzene reported in source area well 539-MW1 have decreased from a maximum of 35.5 µg/L in October 1992 to 9.8 µg/L in January 2004 (see attached Figure 5-5, BEI 2005). Reported concentrations of TPH-d decreased from a maximum of 1,730 mg/L in October 1992 to 22 mg/L in January 2004. TPH-d was reported at concentrations of 1.3 to 1.6 mg/L in downgradient wells 539-MW2 and 539-MW3, respectively, during January 2004.

Monitoring results indicate that there has been little downgradient migration of COCs from the source area at former UST 539, and concentrations of COCs have markedly decreased or have been stable since monitoring was initiated in 1992. Decreasing concentration trends are anticipated to continue in the vicinity of well 539-MW1 as a result of natural attenuation processes.

Monitoring wells installed, properly permitted?
Three groundwater monitoring wells are installed at the site (539-MW1 through 539-MW3) (see attached Figure 5-4 for well locations, BEI 2005).

Depth to groundwater:
Approximately 10 feet below ground surface.

Remedial action taken?
UST 539 was removed in 1990.

Closure

Does complete corrective action protect beneficial uses per the RWQCB Basin Plan?
Yes

Remedial action taken?
UST 539 was removed in 1990.

Site Closure:
Results of groundwater monitoring conducted from 1992 through 2004 indicate that COCs in groundwater are not migrating downgradient, and concentrations of COCs near the source area and in downgradient wells are decreasing due to natural attenuation.

It is recognized that groundwater located beneath NAF El Centro is generally of poor quality due to low aquifer yields and high concentrations of total dissolved solids, and is therefore not designated as a potential source of drinking water (RWQCB 2003).

Based on the above information, groundwater monitoring may be discontinued at UST Site 539, and the three groundwater monitoring wells at the site shall be destroyed in accordance with applicable local, state, and federal law. The recommendation for site closure is accepted and no further action is required.

Signature_____ _____
Date

N.R. Wells
Lieutenant Commander, CEC, US Navy
By Direction of
The Commanding Officer

Signature Dan Vugrin 6/26/06
Date

Liann P. Chavez, P.G.
Senior Engineering Geologist
California Environmental Protection Agency
California Regional Water Quality Control
Board Colorado River Basin Region

Signature _____ 08/08/06
Date

Kimberly A. Counts-Lineses
Environmental Installation Program Director
By Direction of
The Commanding Officer

REFERENCES

Amtech Laboratories. 1990. Three soil samples; Demo Bldg 539, NAF El Centro. 09 January.

Bechtel Environmental, Inc. 2005. Draft Annual Groundwater Monitoring Report for Petroleum-Only Sites, Naval Air Facility El Centro, El Centro, California. July.

BEI. *See* Bechtel Environmental, Inc.

Bechtel National, Inc. 2000. Final Technical Memorandum, UST Site Investigation, Naval Air Facility, El Centro, California. March.

California Regional Water Quality Control Board, Colorado River Basin – Region 7. 2003. Letter addressed to Mr. James Hoyle, Remedial Project Manager, Southwest Division (Code 5DEN.JH), 1220 Pacific Highway, San Diego, CA, RE: Request for ARARs for an RI/FS at IR Site 2, Naval Air Facility, El Centro. 24 January.

Jacobs Engineering Group, Inc. 1993. UST Site Assessment at Buildings 116, 533, and 539, Site Assessment Report. Naval Air Facility, El Centro, California. 21 April

JEG. *See* Jacobs Engineering Group Inc.

RWQCB. *See* California Regional Water Quality Control Board.